CLAIMS

What is claimed is:

1. A method for transferring data from an input device to a software application having one or more data fields, including the steps of:

storing the data in an entity;

storing identification information regarding the input source of the data in said entity;

transferring said entity to the software application; and

associating said entity with one of said data fields based on said identification information.

2. The method of claim 1, further including the step of:

forming a data object for said entity.

3. The method of claim 2, wherein the software application further includes one or more forms, each of said forms designed to receive one or more form objects, each of said form objects containing a data selection criteria.

4. The method of claim 3, wherein said transferring step includes the step of:

routing said data object to one of said form objects, said form object chosen based on said data selection criteria and said identification information.

5. The method of claim 3, wherein said form objects associated with a specific form collectively describe the data input requirements of said form.

6. The method of claim 1, wherein said identification information includes information chosen from the group consisting of time, position, temperature, humidity, and indications of the past history of data flow through the system.

7. The method of claim 3, wherein the software application further includes one or more input requestors, each of said form objects associated with one of said input requestors.

8. The method of claim 3, wherein said selection criteria specifies conditions for using said data object to satisfy the input requirements of one of said form objects.

9. The method of claim 3, wherein said selection criteria is based on information chosen from the group consisting of the content of the data, the format of the data, and said identification information.

10. The method of claim 3, further including the step of processing the data in said data object.

11. The method of claim 10, wherein the processing details of said data object are not known to said form object.

12. The method of claim 1, wherein said transferring step is performed by an operating system.

13. The method of claim 1, wherein said transferring step further includes the step of:

sending the data to a data exchange mechanism.

14. The method of claim 13, wherein said data exchange mechanism is chosen from the set consisting of a dynamic data exchange (DDE), a component object model (COM), an object linking and embedding (OLE), a distributed component object model (DCOM) and a common object broker remote access (COBRA).

15. The method of claim 1, wherein said transferring step includes operations chosen from the group consisting of operation sequencing, data translation, process synchronization, content filtering, and path routing.

16. The method of claim 1, wherein said transferring step is accomplished using component objects.

17. A method for outputting data from a software application including the steps of:

storing the data in an entity;

storing identification information on the destination of the output data in said entity; and

transferring said entity to one or more output destinations based on said identification information.

18. The method of claim 17, further including the step of:

forming a data object for said entity.

19. The method of claim 18, wherein the software application further includes one or more forms, each of said forms having one or more form objects, each of said form objects containing a data selection criteria.

20. The method of claim 19, wherein said form objects associated with a specific form collectively describe the data output requirements of said form.

21. The method of claim 17, wherein said identification information includes conditions under which the data is to be output.

22. The method of claim 17, wherein said identification information is indicated by the format of the data.

23. The method of claim 19, wherein the software application further includes one or more output requestors, each of said form objects is associated with one of said input requestors.

24. The method of claim 19, wherein said selection criteria specifies conditions for transferring said data object to one of said output destinations.

25. The method of claim 19, wherein said selection criteria is based on information chosen from the group consisting of the content of the data, the format of the data, and said identification information.

26. The method of claim 19, further including the step of processing the data in said data object.

27. The method of claim 26, wherein the processing details of said data object are not known to said form object.

28. The method of claim 17, wherein said transferring step is performed by an operating system.

29. The method of claim 17, wherein said transferring step further includes the step of: sending the data to a data exchange mechanism.

30. The method of claim 29, wherein said data exchange mechanism is chosen from the set consisting of a dynamic data exchange (DDE), a component object model (COM), an object linking and embedding (OLE), a distributed component object model (DCOM) and a common object broker remote access (COBRA).

31. The method of claim 17, wherein said transferring step includes operations chosen from the group consisting of operation sequencing, data translation, process synchronization, content filtering, and path routing.

32. The method of claim 17, wherein said transferring step is accomplished using component objects.

33. A computer system for transferring data from an input device to a software application having one or more data fields, including:

a memory writer which stores the data in an entity and stores identification information regarding the input source of the data in said entity;

a sender which transfers said entity to the software application; and

a matcher which associates said entity with one of said data fields based on said identification information.

34. The computer system of claim 33, further including a:

an entity modifier which forms a data object for said entity.

35. The computer system of claim 33, wherein the software application further includes one or more forms, each of said forms designed to receive one or more form objects, each of said form objects containing a data selection criteria.

36. The computer system of claim 35, wherein said sender includes:

a router which routes said data object to one of said form objects, said form object chosen based on said data selection criteria and said identification information.

37. The computer system of claim 35, wherein said form objects associated with a specific form collectively describe the data input requirements of said form.

38. The computer system of claim 33, wherein said identification information includes information chosen from the group consisting of time, position, temperature, humidity, and indications of the past history of data flow through the system.

39. The computer system of claim 35, wherein the software application further includes one or more input requestors, each of said form objects associated with one of said input requestors.

40. The computer system of claim 35, wherein said selection criteria specifies conditions for using said data object to satisfy the input requirements of one of said form objects.

41. The computer system of claim 35, wherein said selection criteria is based on information chosen from the group consisting of the content of the data, the format of the data, and said identification information.

42. The computer system of claim 35, further including a processor which processes the data in said data object.

43. The computer system of claim 42, wherein the processing details of said data object are not known to said form object.

44. The computer system of claim 33, wherein said sender is contained within an operating system.

45. The computer system of claim 33, wherein said sender includes:
a sender which transfers the data to a data exchange mechanism.

46. The computer system of claim 45, wherein said data exchange mechanism is chosen from the set consisting of a dynamic data exchange (DDE), a component object model (COM), an object linking and embedding (OLE), a distributed component object model (DCOM) and a common object broker remote access (COBRA).

47. The computer system of claim 33, wherein said sender includes:
a sender which performs operations chosen from the group consisting of operation sequencing, data translation, process synchronization, content filtering, and path routing.

48. The computer system of claim 33, wherein said sender includes:

a sender which transfers said entity to the software application using component objects.

49. A computer system for outputting data from a software application including:

a memory writer which stores the data in an entity and stores identification information on the destination of the output data in said entity; and

a sender which transfers said entity to one or more output destinations based on said identification information.

50. The computer system of claim 49, further including:

an entity modifier which forms a data object for said entity.

51. The computer system of claim 50, wherein the software application further includes one or more forms, each of said forms having one or more form objects, each of said form objects containing a data selection criteria.

52. The computer system of claim 51, wherein said form objects associated with a specific form collectively describe the data output requirements of said form.

53. The computer system of claim 49, wherein said identification information includes conditions under which the data is to be output.

54. The computer system of claim 49, wherein said identification information is

indicated by the format of the data.

55. The computer system of claim 51, wherein the software application further includes one or more output requestors, each of said form objects is associated with one of said input requestors.

56. The computer system of claim 51, wherein said selection criteria specifies conditions for transferring said data object to one of said output destinations.

57. The computer system of claim 51, wherein said selection criteria is based on information chosen from the group consisting of the content of the data, the format of the data, and said identification information.

58. The computer system of claim 51, further including:

a processor which processes the data in said data object.

59. The computer system of claim 58, wherein the processing details of said data object are not known to said form object.

60. The computer system of claim 49, wherein said sender is included within an operating system.

61. The computer system of claim 49, wherein said sender includes:

a sender which transfers the data to a data exchange mechanism.

62. The computer system of claim 61, wherein said data exchange mechanism is chosen from the set consisting of a dynamic data exchange (DDE), a component object model (COM), an object linking and embedding (OLE), a distributed component object model (DCOM) and a common object broker remote access (COBRA).

63. The computer system of claim 49, wherein said sender includes:

a sender which performs operations chosen from the group consisting of operation sequencing, data translation, process synchronization, content filtering, and path routing.

64. The computer system of claim 49, wherein said sender includes a sender which transfers said entity to one or more output destinations based on said identification information using component objects.